

Maternal Infant Health Initiatives

2021 Annual Report 2016-2020 Data



ST. JOSEPH COUNTY
DEPARTMENT OF HEALTH
Prevent. Promote. Protect.

Fetal Infant Mortality Review
Birth Equity & Justice SJC
Maternal, Infant, & Preconception Health
Safe Sleep

2021 Year In Review

2021 found the Fetal Infant Mortality Review (FIMR) Program continuing its review of infant and pregnancy loss and community action activities largely via virtual meetings due to continuing concerns about Covid transmission and the need to prioritize the health of team members who serve our community in health care settings.

The initiatives and community engagement surrounding maternal infant health resulted in the SJCDoH applying for and receiving renewed grant funding from the Indiana Department of Health (IDoH) through the Safety PIN (Protecting Indiana Newborns) program. Going forward, all programming related to improving maternal infant health at the SJCDoH will fall under Maternal Infant Health Initiatives (MIHI) including the FIMR Program, and our community action workgroups which include:

- Birth Equity & Justice SJC
 - Community Engagement
 - Policy & Legislation
- Maternal, Infant, and Preconception Health.

The increased capacity provided by the Safety PIN grant will allow MIHI to add staff to coordinate medical record reviews and conversations with mothers and families.

The following report includes data from the years 2016 to 2020. In 2020, St. Joseph County had its lowest infant mortality rate (IMR) since 2011 with 5.9 infant deaths per 1000 live births. This was a significant reduction from the 2019 rate of 8.7. Year to year, our rate is unstable and can move up and down due to our relatively small population size. Examining trends in infant mortality over a 5 year period gives a more accurate view of our progress. For this comparison, from 2015-2019 our IMR was 8.1 and for 2016—2020 it was 7.8. The low rate for 2020 should be celebrated and help us move forward with the knowledge of what is possible for our community. The number of fetal deaths also decreased from 27 in 2019 to 20 in 2020.



This 2021 report includes infant mortality rates, causes of infant death, and a summary of the process used by the FIMR Case Review Team (CRT) to determine the opportunity for prevention of infant and fetal mortality. Please refer to the [2015-2019 report](#) for a comprehensive view of how the individual and system factors interact to contribute to infant and fetal mortality. Community Action recommendations and accomplishments are available in the [Maternal Infant Health Initiatives Report for 2022](#).

St. Joseph County Department of Health

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Section 1: Acknowledgements

Maternal Infant Health Initiatives (MIHI) is comprised of the Fetal Infant Mortality Review (FIMR) Case Review Team and Community Action Workgroups including Birth Equity and Justice SJC, Maternal, Infant, and Preconception Health, and the many community partnerships and projects worked on throughout the year by the MIHI Coordinator. Team and workgroup members serve on a volunteer basis and represent health systems, hospitals, obstetric and family medicine practices, health plans, public health, and community based agencies as well as community members with a commitment to improving maternal and infant health through FIMR recommendations.

Volunteers are nurses, physicians, social workers, case managers, doulas, mental health, community health workers, and public health professionals who specialize in maternal infant health. Some team members participate on one team, while others serve on on every team. New team members are recruited by current team members or when they express interest through a variety of connections to Maternal Infant Health Initiatives including attending a presentation or participating in special projects.

FIMR Case Review Team 2021

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Birth Equity & Justice SJC Community Engagement 2021

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Linda Wolfson
Community Forum for Economic Justice



In 2020, the funding of Maternal Infant Health Initiatives at the St. Joseph County Department of Health included grants from



Title V Maternal Child Health Funding

**For the Fetal Infant
Mortality Review (FIMR)
Program**

**October 2018 to
September 2020**

Pregnancy Intention Screening Project

**in primary care settings
with Power to Decide.**

**to improve health
before and between
pregnancies.**

Birth Equity Assessment

**in partnership with the
National Birth Equity
Collaborative**

Birth Equity Assessment

**in partnership with the
National Birth Equity
Collaborative**

Section 2:

Infant Mortality in St. Joseph County

2016-2020

Infant Mortality is measured by the number of infant deaths (up to one year of age) per 1,000 live births

A live birth is the birth of an infant at any gestational age, with signs of life after delivery and includes those born prior to viability.

In 2020 infant deaths decreased from 30 (2019) to 19, causing SJC's infant mortality rate (IMR) to decrease from 8.7 deaths /1000 births to 5.9. Because of our community's relatively small population, our IMR fluctuates a great deal from year to year, with a few more or less deaths resulting in a significant change in the rate. To get a more stable view of the infant mortality rate in our community, we look at 5 year increments of time and disaggregate, or separate, the combined IMR by infant race and ethnicity. Because the SJC population is 72% white (1), the lower white IMR creates a lower infant mortality rate that conceals the racial disparity in birth outcomes unless the rate is disaggregated by race and ethnicity.

Table 1.0 Year	St. Joseph County Infant Mortality Rate
2020	5.9
2019	8.7
2018	6.9
2017	10.3
2016	7.3

Source: Indiana Dept. of Health

Infant Mortality by Maternal Race and Ethnicity 2020

The IMR for 2020 reflects a decrease for the IMR for Black -NH infants (8.6) and White-NH infants (3.8). The Hispanic rate for 2020 is not calculated because there were <5 deaths. Infant deaths for other ethnicities are not reported due unstable rates. The lower IMR for 2020 is encouraging because it makes clear what is possible for our community.

The next page shows IMR by race and ethnicity in 5 year increments over the last 12 years. As of this writing, the preliminary numbers for 2021 reflect an increase in infant deaths, closer to the rate for 2019.

It's difficult to know exactly why the 2020 IMR was so much better. We do know that around the world, early in the pandemic, that hospital NICUs saw a decrease in prematurity(2), however, SJC's rate of premature births increased in 2020 from 10.1% to 11.2% (3) and our number of infant deaths due to prematurity increased by one. For SJC in 2020, there were fewer infant deaths due to congenital abnormalities and other medical causes. (4)

Table 2.0 Year	IMR 2020	IMR 2016 to 2020
All SJC infants	5.9	7.8
Black NH	8.6	15.4
White NH	3.8	5.4
Hispanic any race	unstable	7.7

Source: Indiana Dept. of Health

Infant Mortality by Maternal Race and Ethnicity 2010 -2020

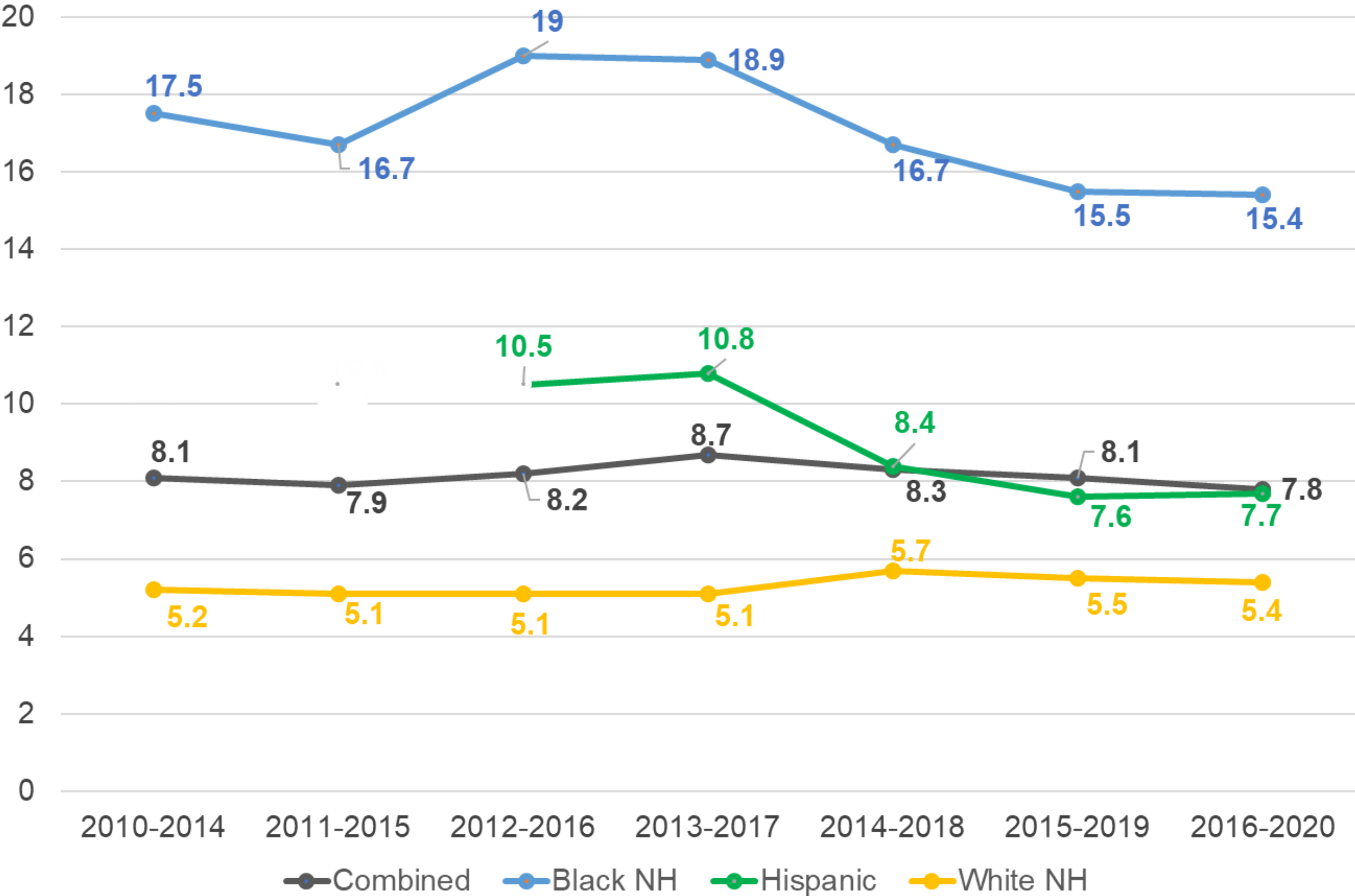
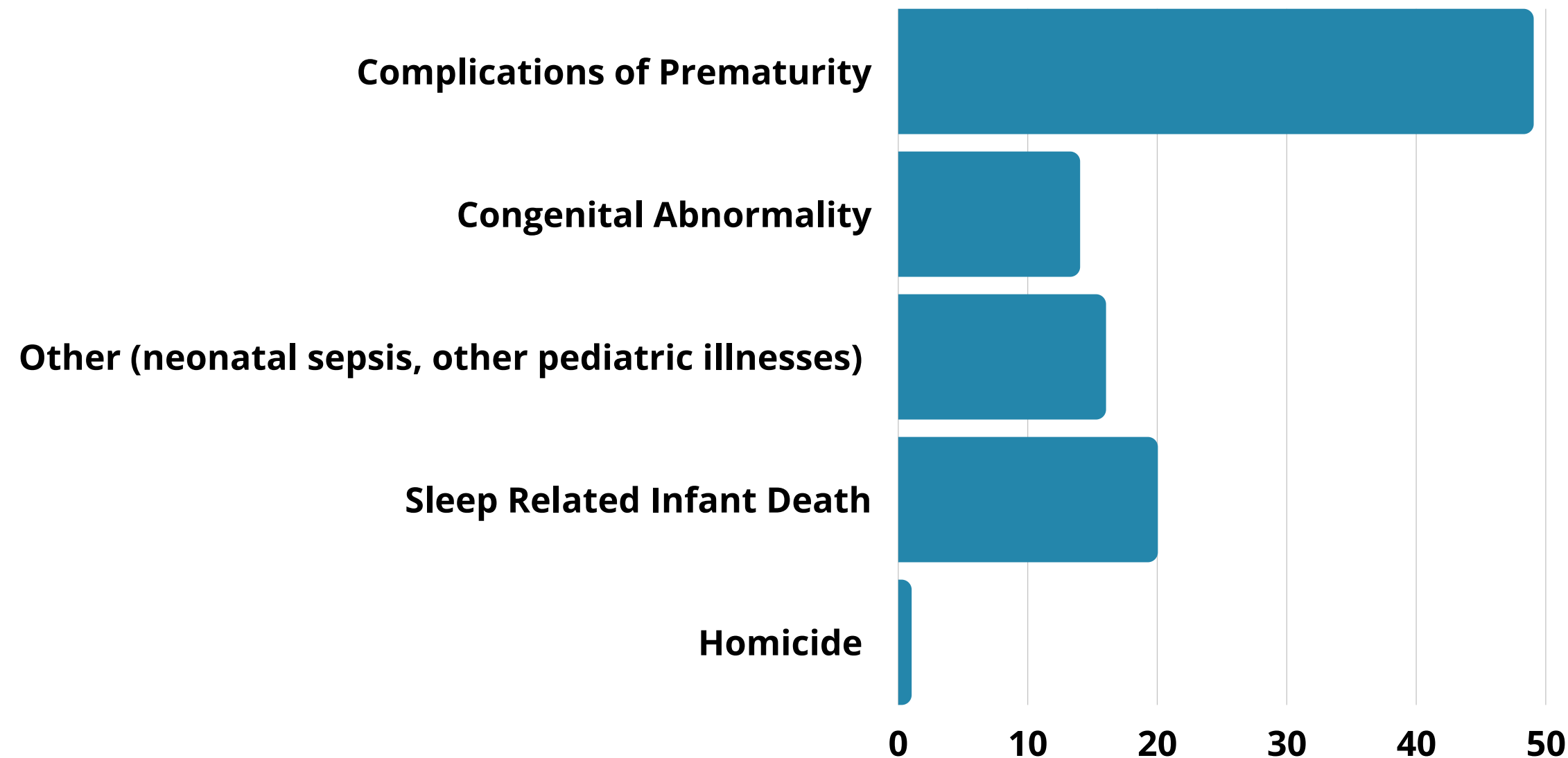


Table 3	Total Number of Infant Deaths by Maternal Race/Ethnicity 2016-2020
Black NH	42
Hispanic	11
All other	5
White NH	60

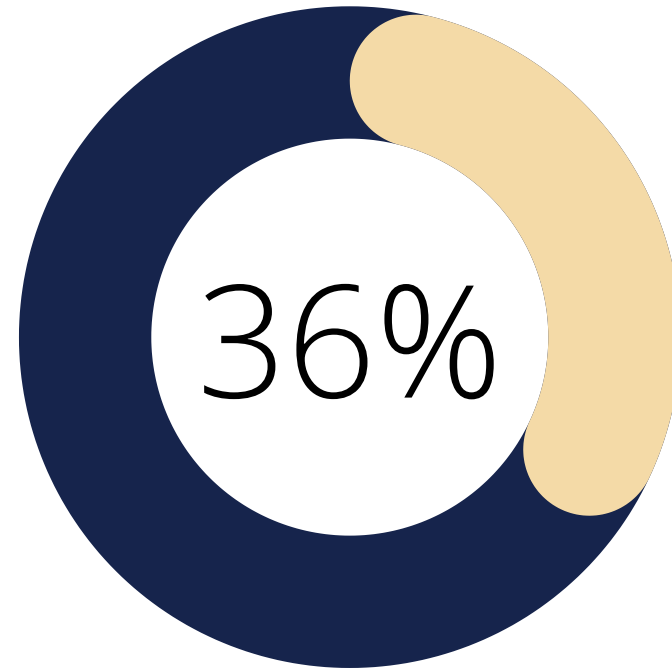
Source: Indiana Dept. of Health

Causes of Infant Mortality, 2016-2020

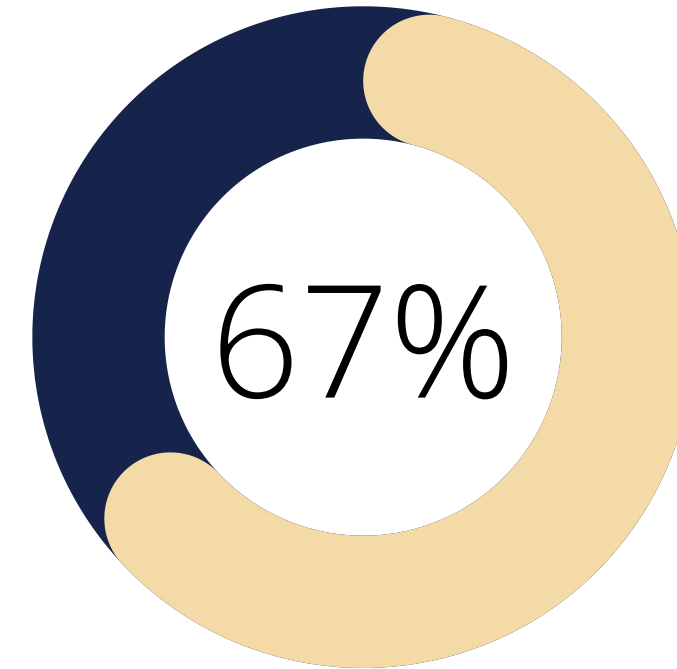


In cases reviewed by the SJC FIMR Team for the 5 years spanning 2016-2020:

- **Complications of prematurity were down 4% from 2015-2019.**
- **Sleep related deaths were up 1% from 2015 to 2019.**
- **Other causes of infant death were up 2% from 2015-2019.**
- **There was no change in the percentage of infant death due to Congenital Abnormality**
- **There was 1 infant death due to homicide during the 5 year period.**

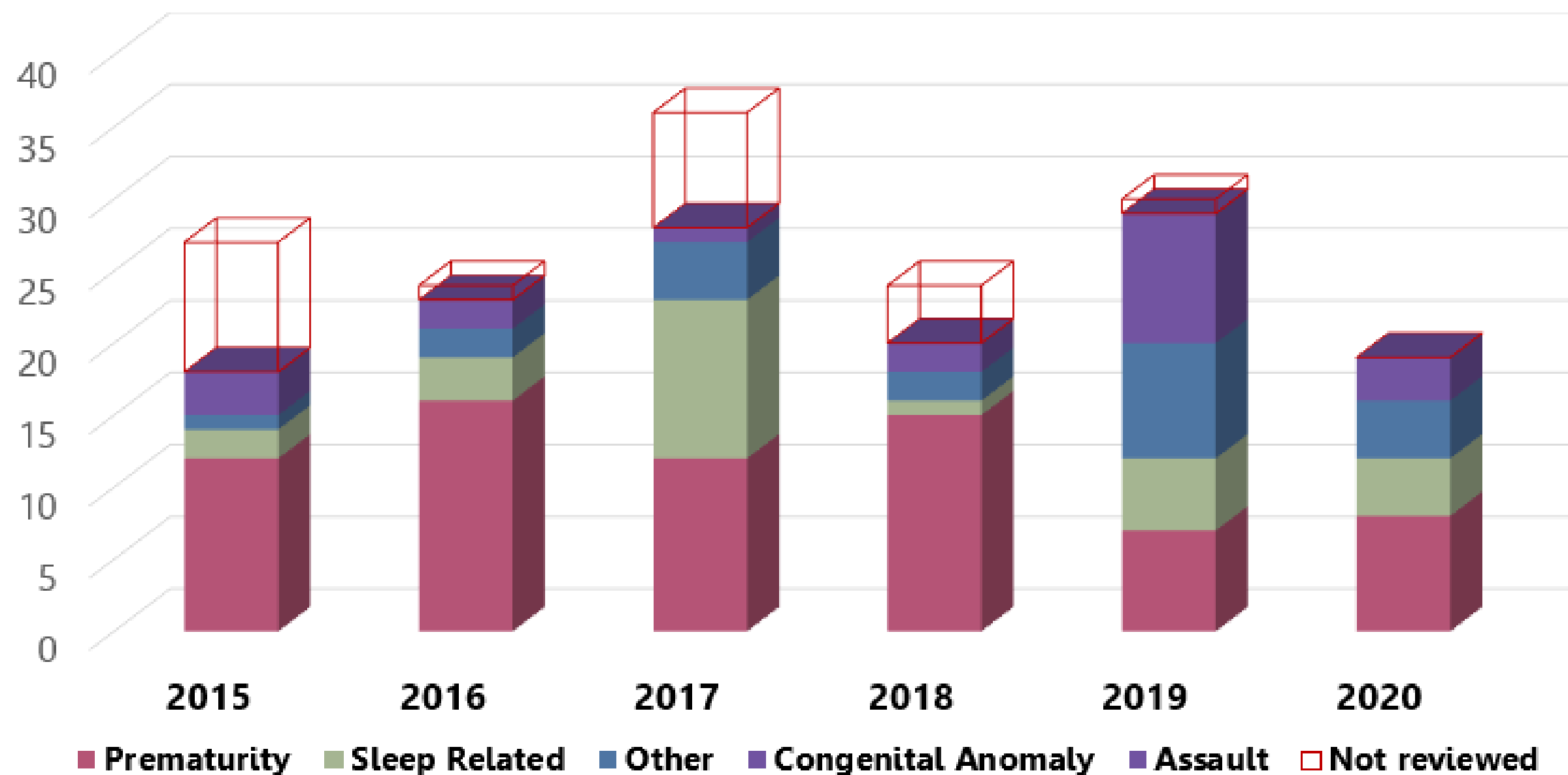


of infants survived
less than one day
after birth.



of infants were
never well enough to
go home from the
hospital after birth.

Cause for Reviewed Infant Deaths, 2016 -2020



The causes of death fluctuate from year to year, requiring attention to strategies to prevent each type of infant loss in an ongoing manner.

The new IDoH Vital Records Drive system provides the FIMR Program greater access to all SJC resident infant deaths, decreasing the number of cases that go unreviewed.

Source: Indiana Dept. of Health and SJC FIMR Case Review

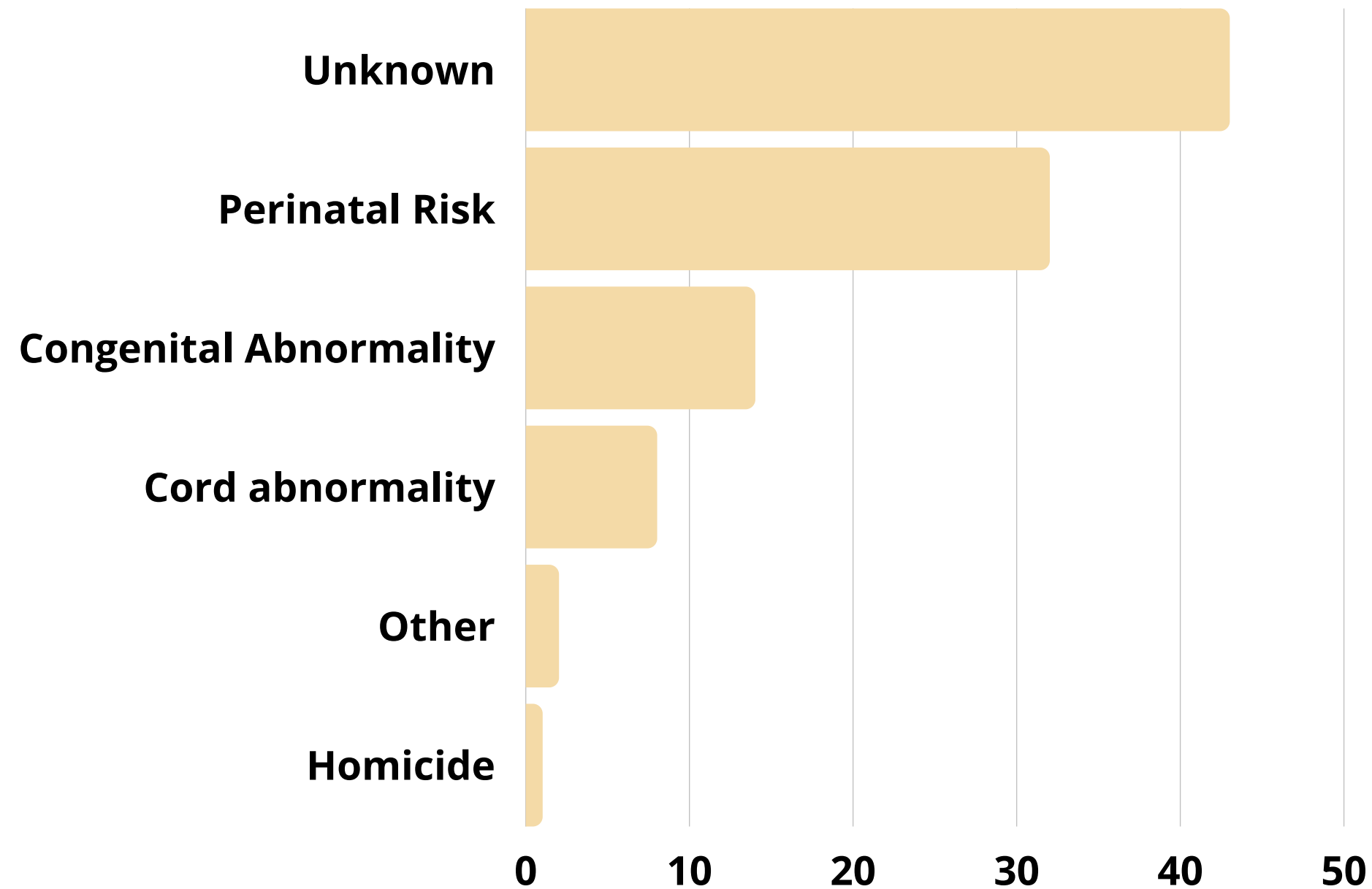
Fetal Mortality by Race and Ethnicity 2020

A fetal death, or stillbirth, is the death of a fetus prior to delivery, at 20 or later weeks of pregnancy. Fetal mortality is measured by the number of fetal deaths per 1000 births.

Table 2.0 Year	Fetal Mortality Rate 2017-2020	Total Number of deaths
All Fetal deaths	6.2	85
Black NH	8.9	26
White NH	5.6	50
Hispanic, any race	4.1	7
Other	-	<5

Source: SJCDoH FIMR Case Review

Causes of Fetal Mortality, 2017-2020



Not every FIMR team reviews cases of stillbirth. The SJC Case Review Team (CRT) began studying fetal deaths in 2017. We will have 5 years of completed fetal mortality data included in the 2023 FIMR annual report.

When the cause of a fetal death or stillbirth is documented as unknown, it means that they were not able to determine the exact medical reason that led to the death. However, for fetal deaths due to an unknown cause, many have other risk factors present such as growth restriction, abnormal placenta, or other maternal pregnancy factors.

Source: SJCDoh FIMR Case Review

Prevention



At each Case Review Team (CRT) Meeting, the team studies each case of infant and fetal mortality to determine the opportunity for prevention. The team utilizes a decisions form, adapted from the Maternal Mortality Review, to consider each aspect of the story, create recommendations, and decide if there was some opportunity for prevention.



Case Review Decision Making Questions

1

Would access to preconception or interconception care make a difference?

Smoking cessation, substance use treatment, pregnancy intention, interconception planning for cerclage/17P, STI treatment, birth spacing, mental health treatment, Folic acid, care for chronic diseases, and previous pregnancy complications.

2

Did the timing of entry to prenatal care or number of prenatal visits affect the birth outcome?

If so, what were the barriers to care?

3

Did a delay in health insurance coverage or issues with insurance coverage interfere with care?

4

Did trauma and/or mental health play a role in the loss? Was there evidence of adequate intervention?

5

Did implicit bias play a role in access to or quality of care? Did the mother present for or call for symptoms and not have them addressed?



Case Review Decision Making Questions

6

Did the mother and/or family have challenges with: housing, transportation, food security, employment, partner and family support?

7

Was there a clear medical reason for the loss?
Preterm delivery history, Preeclampsia, cervical insufficiency, placental insufficiency, cord problem, PPROM, abruption, pre-viable, complications of prematurity, sepsis, maternal chronic disease.

8

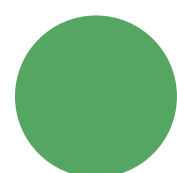
Would a certain medical treatment or intervention have improved the chance of a positive outcome during prenatal care or hospital care?

9

What were the positive elements of maternal/family action, medical care, or system access?

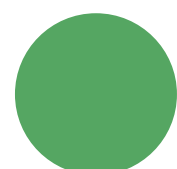
Recommendations and Chance for Prevention

Based on the answers to the questions above, the Case Review Team determines whether something concrete could have made a difference before or during pregnancy, labor & delivery, or in the infant's first year, and prevented the infant or fetal death.



Was the death preventable?

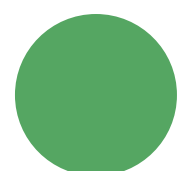
Yes No Unable to Determine



What chance would there be to change the outcome?

Good chance Some Chance Slim chance No chance

Only cases where there was some to good chance are included in the preventable cases.



What type of intervention that would make the difference?

Before or between pregnancies (Preconception/Interconception Health)

During pregnancy.

During delivery

Postpartum

Change in systems and policy

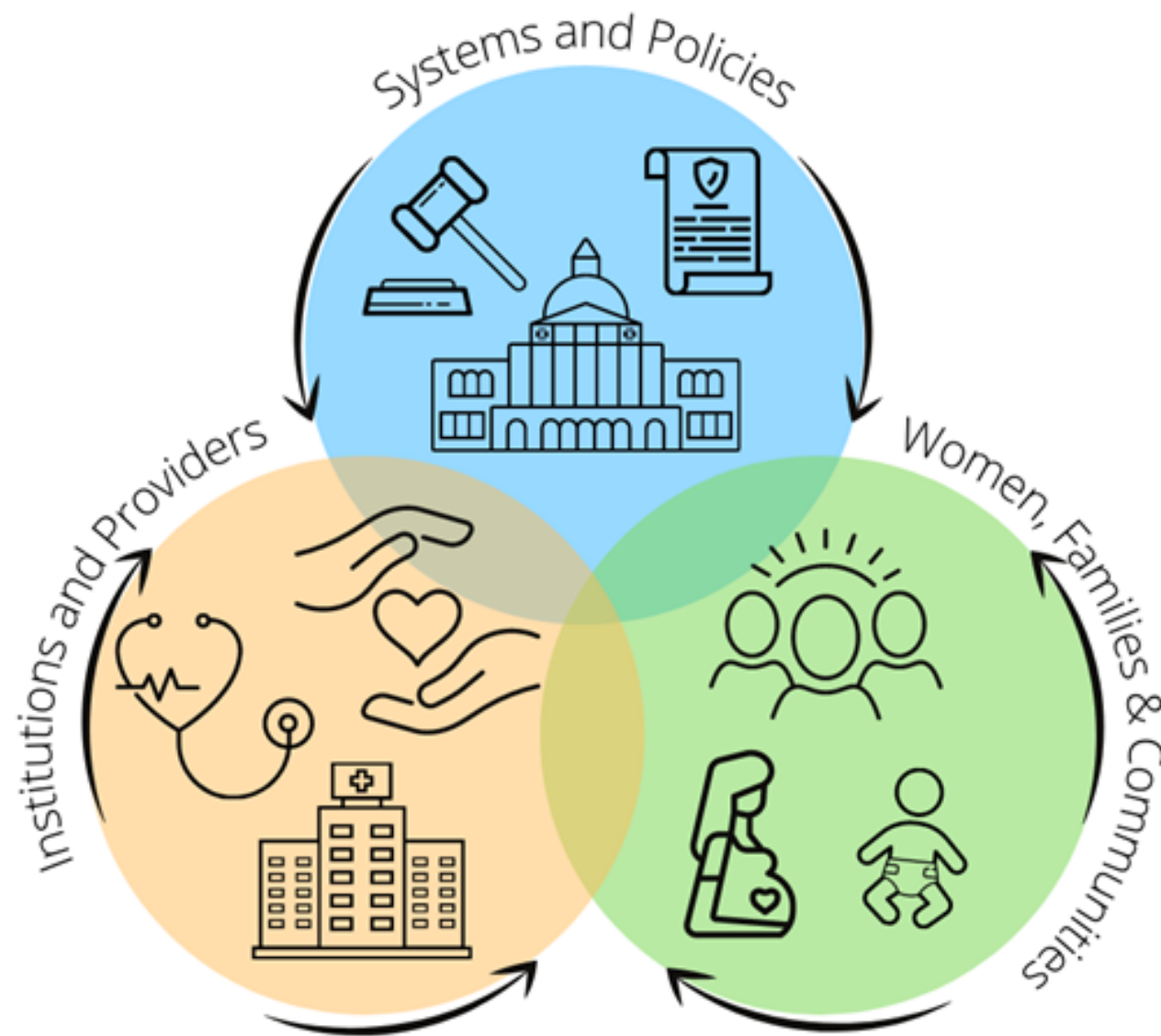
Changes in institutions and practice.

Standard of Care

Connection to support and resources.



Recommendations & Chance for Prevention



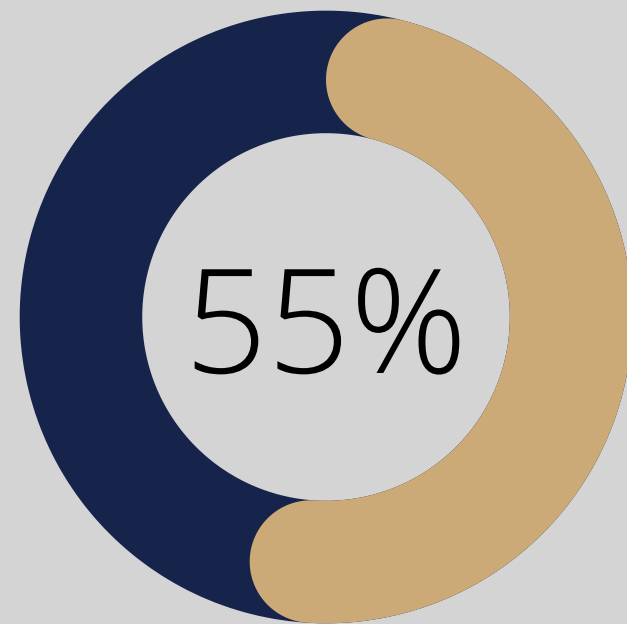
Systems/Policy: structural changes, local, state, federal policy.

Institutions & Providers & Nonprofits: Hospitals, Obstetric and pediatric practices, ED, Childbirth units, community based/non medical care, resources, and support. Continuity, communication. Education/Training

Mothers/Families Connection, Support, Information (referrals, referral process, interaction with institutions/providers, systems, barriers to insurance and care, etc.)

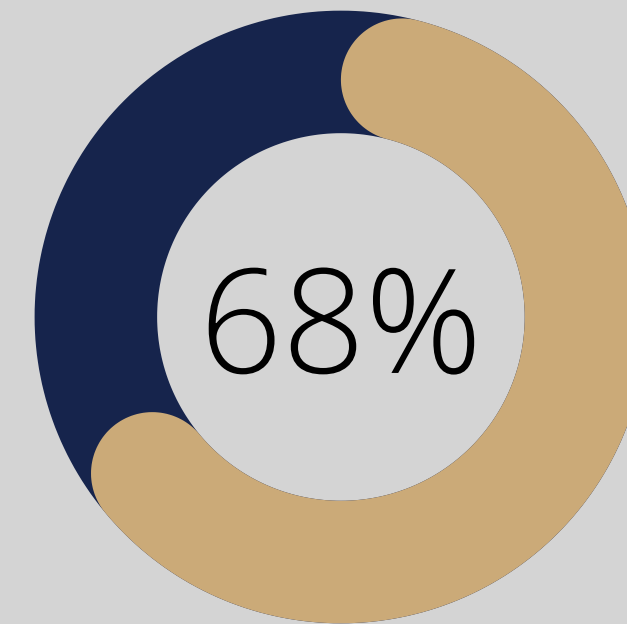
Did the family receive adequate bereavement support?

2016-2020



of infant deaths had
some to good chance
of prevention.

2017-2020



of fetal deaths had
some to good chance
of prevention.

Recommendations to Improve Maternal Infant Health and Decrease Infant Mortality

Eliminate racial and socioeconomic disparities in birth outcomes.

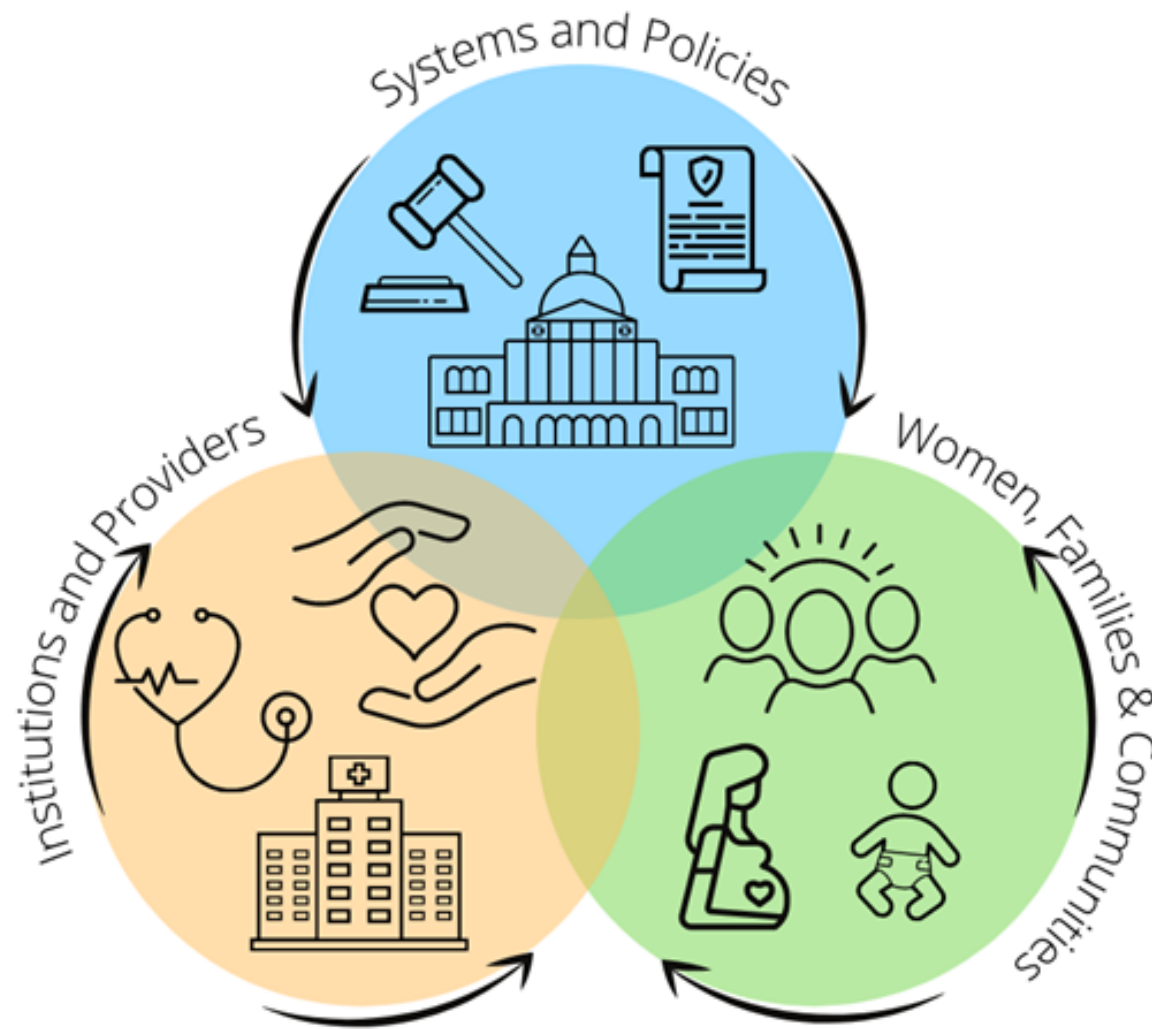
Integrate clinical care and community based organizations providing connection to support and resources.

Provide data and information to support policy and legislation to improve birth outcomes.

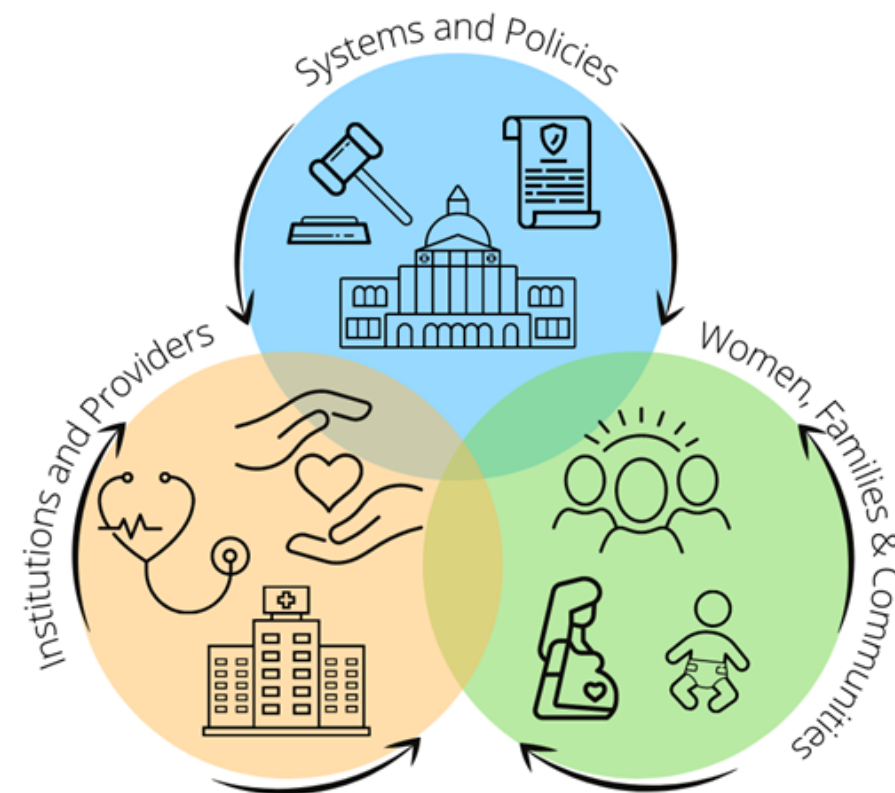
Improve sleep related death prevention education for providers and families to include factors that increase the risk of a sleep related death.

Connect mothers to first trimester prenatal care and resources.

Improve women's pregnancy health through access to information and affordable, quality health care before, during, and after pregnancy.



Please see the
2022 Maternal Infant Health
Initiatives Community Action Report
for 2021 Community Action and 2022
Plans and Recommendations for
Prevention.



Citations

1. Quick Facts. St. Joseph County." *United States Census Bureau*. Retrieved from <https://www.census.gov/quickfacts/fact/table/stjosephcountyindiana/PST045221>
2. Preston, Elizabeth, "During Coronavirus Lockdowns, Some Doctors Wondered: Where Are The Preemies?" *New York Times*. 19 July 2020.
3. IDOH ODA Stats Explorer. Retrieved from https://gis.in.gov/apps/isdh/meta/stats_layers.htm
4. St. Joseph County Department of Health Fetal Infant Mortality Review, 2021.